

**Amendments to the Claims:**

1. (Currently Amended) A computerized method of operation of a control system, comprising
  - A. with a first scheduler associated with a first process ~~any of a first computer process and first computer thread, collectively, "first process",~~ selecting a highest priority event associated with the first process, where the first process is any of a first computer process and a first computer thread,
  - B. with a second scheduler associated with a second process ~~any of a second computer process and second computer thread, collectively, "second process",~~ the second process being loosely coupled with respect to the first process, selecting a highest priority event associated with the second process, where the second process is any of a second computer process and a second computer thread,
  - C. with each of the first scheduler and the second scheduler, comparing for identity of the highest priority event selected by the first scheduler with the highest priority event selected by the second scheduler,
  - D. with the first scheduler, responding to ~~a favorable comparison~~ an agreement of identity indicated in step (C) by selecting a first sequence of instructions in the first process,
  - E. with the second scheduler, responding to ~~a favorable comparison~~ an agreement of identity indicated in step (C) by selecting a second sequence of instructions in the second process,
  - F. with each of the first and second schedulers, comparing for identity of the selection made by the first scheduler with the selection made by the second scheduler,

- G. with the first scheduler, responding to ~~a favorable comparison~~ an agreement of identity indicated in step (F) by executing, in the first process, the first sequence of instructions,
  - H. with the second scheduler, responding to ~~a favorable comparison~~ an agreement of identity indicated in step (F) by executing, in the second process, the second sequence of instructions,
  - I. responding to ~~an unfavorable comparison~~ a non-agreement of identity occurring more than a selected number of times in any of steps (C) and (F) by rolling back each of the first and second processes to prior states in which ~~a favorable comparison~~ an agreement of identity indicating the first process and the second process executed their respective instruction sequences substantially identically was achieved, and
  - J. wherein each of the first and second processes execute on any of a process control field device, a block controller, a process controller, a process control plant server, a process control enterprise server, an industrial control device, an industrial control system, an environmental control device, an environmental control system, other control device, and other control system.
2. (Currently Amended) A method according to claim 1, comprising the step of executing ~~steps (C) – (H)~~ step (C) one or more times over a time interval in order to determine whether the first and second processes achieve comparable states following completion of execution of the first ~~instruction~~ sequence of instructions by the first process.
  3. (Currently Amended) A method according to claim 2, comprising the step of responding to ~~a favorable comparison~~ an agreement of identity indicated in ~~step (C)~~ steps (C) and (F) by repeating steps ~~(A) – (C)~~ (A) – (I) with a third instruction sequence in place of the first ~~instruction~~ sequence of instructions, and with a fourth instruction sequence in place of the second ~~instruction~~ sequence of instructions.
  4. (Currently Amended) A method according to claim 3, comprising the steps of

selecting the third instruction sequence as a function of a state of the first process following execution of the first ~~instruction~~ sequence of instructions, and

selecting the fourth instruction sequence as a function of a state of the second process following execution of the second ~~instruction~~ sequence of instructions.

5. (Currently Amended) A method according to claim 4, comprising comparing [[a]] the state of the first process prior to execution by it of the third instruction sequence with [[a]] the state of the second process prior to execution by it of the fourth instruction sequence.
6. (Currently Amended) A method according to claims 1, 3 or 5, comprising the step of signaling an error in response to a failure of the first and second processes to achieve comparable states at a time of comparison.
7. (Cancelled)
8. (Currently Amended) A method according to claim 1, wherein any of steps ~~step~~ (C) and (F) comprises comparing any of registers, memory, flags, interrupts, tasks, and events in the respective processes.
9. (Original) A method according to claim 1, wherein each of the first and second processes comprise any of a thread and a process, and wherein the first and second processes execute on any of the same and different digital data processing apparatus.

10. (Currently Amended) A control apparatus comprising one of more digital data processors capable of executing any of a process or a thread, comprising
- A. a first scheduler associated with a first process ~~any of a first computer process and first computer thread, collectively, "first process"~~, the first scheduler configured to select a highest priority event associated with the first process, where the first process is any of a first computer process and a first computer thread,
  - B. a second scheduler associated with a second process ~~any of a second computer process and second computer thread, collectively, "second process"~~, the second scheduler configured to select a highest priority event associated with the second process, where the second process is any of a second computer process and a second computer thread,
  - C. each of the first scheduler and the second scheduler further configured to compare for identity of the highest priority event selected by the first scheduler with the highest priority event selected by the second scheduler,
  - D. the first scheduler further configured to respond to ~~a favorable comparison~~ an agreement of identity indicated in step (C) by selecting a first sequence of instructions in the first process,
  - E. the second scheduler further configured to respond to ~~a favorable comparison~~ an agreement of identity indicated in step (C) by selecting a second sequence of instructions in the second process,
  - F. each of the first scheduler and the second scheduler further configured to compare for identity of the selection made by the first scheduler with the selection made by the second scheduler,
  - G. the first scheduler further configured to respond to ~~a favorable comparison~~ an agreement of identity indicated in step (F) by executing, in the first process, the first sequence of instructions,

- H. the second scheduler further configured to respond to ~~a favorable comparison~~ an agreement of identity indicated in step (F), by executing, in the second process, the second sequence of instructions,
- I[[D]]. each of the first scheduler and the second scheduler further configured to respond to ~~an unfavorable comparison~~ a non-agreement of identity occurring more than a selected number of times in any of steps (C) and (F) by rolling back each of the first and second processes to prior states in which ~~a favorable comparison~~ an agreement of identity indicating the first process and the second process executed their respective instruction sequences substantially identically was achieved, and
- II[[E]]. wherein each of the first and second processes execute on any of a process control field device, a block controller, a process controller, a process control plant server, and a process control enterprise server, industrial control device, an industrial control system, an environmental control device, an environmental control system, other control device, and other control system.
11. (Currently Amended) An apparatus according to claim 10, wherein any of the first scheduler and the second scheduler is configured to compare ~~the comparison logic compares~~ any of registers, memory, flags, interrupts, tasks, and events in each of the respective processes.
12. (Cancelled)
13. (Currently Amended) An apparatus according to claim 11, wherein,
- the first scheduler is configured to ~~scheduling logic schedules the first process to execute~~ select a third sequence of instructions as a function of a state of the first process following execution of the first sequence of instructions ~~in response to a favorable comparison by the comparison logic,~~

~~the second scheduler is configured to scheduling logic schedules the second process to execute select a fourth sequence of instructions as a function of a state of the second process following execution of the second sequence of instructions in response to a favorable comparison by the comparison logic.~~

14. (Currently Amended) An apparatus according to claim 13, wherein each of the first and second schedulers are configured to compare the comparison logic compares a state of the first process prior to execution by it of the third instruction sequence with [[a]] the state of the second process prior to execution by it of the fourth instruction sequence.

15. - 16. (Cancelled)

17. (Currently Amended) An apparatus according to claims 10, 13 or 14, wherein ~~the comparison logic compares~~ each of the first and second schedulers are configured to compare a state of the first process with a state of the second process a plurality of times to determine whether the first and second processes to achieve comparable states.

18. (Original) An apparatus according to claim 10, wherein each of the first and second processes comprise any of a thread and a process, and wherein the first and second processes execute on any of the same and different digital data processing apparatus.

19. – 66. (Cancelled)